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A LITTLE KNOWN JAMAICAN NATURALIST, DR. ANTHONY ROBINSON.

By T. D. A. Cockerell.

There are, in the library of the Institute of Jamaica, some interesting old manuscripts, together with a number of drawings which constitute almost the sole record we have of the scientific labors of Dr. Robinson in the island. The drawings are original but the manuscripts are copied from the papers left by the learned doctor, which latter appear to have been lost. The following notice is appended to the copy:

"This [is a] faithfull transcript of Mr. Robinson's loose unconnected and detach'd papers, by Rt. Long, who has revised the whole and corrected the errors of copyist thro-out. Septr., 1769.

"Anthony Robinson, Chirurgeon, formerly of Sunderland by the Sea in Durham, but lately of Jamaica."

In the Jamaica Institute is a pencil drawing of the doctor, by Edward Long, in connection with which Mr. F. Cundall has written the following biographical note:

"Anthony Robinson, surgeon and botanist: a native of Sunderland, England, where he was apprenticed to his father, a surgeon and apothecary: early turned his attention to botany: came to Jamaica: made a collection of several hundred figures and descriptions of Jamaica plants and animals: the drawings are in the Institute of Jamaica, with a copy of the MS. made under the supervision of his friend, Robert Long. (The original MS. is lost). His notes were used by Lunan in his "Hortus Jamaicensis," and by Gosse in his "Naturalist's Sojourn" and "Birds of Jamaica." The House of Assembly voted him £140 in 1767 for his discovery of the method of making soap from the juice of the Coratoe. *d.* 1768." (Journ. Inst. Jamaica, Vol. 1, p. 327).

Although Dr. Robinson did not himself publish, some of his notes have been used by later writers, as stated above. The greater part of the manuscript, however, is still unpublished, and not long ago it was debated whether the ornithological observations should not be issued by the Institute, accompanied by a selection from the colored drawings. This project after consultation with an experienced ornithologist, was abandoned, at least for the present, as so large a portion of the manuscript consists of elaborate descriptions which would practically duplicate those in existing works. Had these descriptions been published when Dr. Robinson wrote them, their value would have been very different.

The extracts from the manuscript by Gosse in his well known works sufficiently testify to the scientific zeal and knowledge of Dr. Robinson, although his methods were rather those of an age now past. I brought with me from Jamaica copies of several unpublished portions of the manuscript, and will give a few extracts, both to illustrate the character of the man and put on record observations which, although so old, have not lost their value.

1. The Alligator (so-called) of Jamaica, *Crocodilus americanus.* The following selections are from a long account of this animal:

"A very small alligator was put into rum by Mr. Walker, then of Old Harbour, now of Kingston, and according to the nicest reckoning with a watch or other time's measure, liv'd about a quarter of an hour in that spirit."

Of another specimen, "the stomach's contents were bird's feathers (aquatic most probably), joints of crabs claws, and little living white slender worms, with some small pebbles."

The parasitic worms deserve attention; have they been described? In the horned lizard (*Phrynosoma*) of this part of the world (N. Mex.) one finds also such worms.

Dr. Robinson proceeds to describe the crocodile's external features and anatomy: "The guts measuring from the stomach to the end of the intestinum rectum were fifteen feet long, uncoil'd.

"The time the young alligator continued under water was to the outmost but two minutes, as we proved by repeated trials, puddling and disturbing the water in order to keep him under thro' fear as long as his nature would admit.

" He seldom raised more than his nostrils above the water, he ever delv'd at the near approach of any person.

" Taken out of the water, the creature breath'd or made an indraught of air to his lungs, from five to ten slow and regular respirations, and at the end of the fifth, or the tenth time, was a total cessation from breathing for about one minute."

In another place he writes : " Once this animal was observ'd to continue under water upwards of ten minutes.

" I turn'd the alligator on his back and while I staid by him he lay as if lifeless without the least motion, as I observ'd lizards do when turn'd on their backs ; I retir'd for about three minutes out of his sight, and on my return he had recover'd his first situation.

" The tail's extreme I caus'd to be broil'd on the creature's dying, and ate of it. The flesh was extremely white, firm, sweet, moist and juicy, as turtle in whiteness but not so dry, not the least musky in taste or smell. My little spaniel dog ate very greedily of it." This alligator was a young one.

The true alligator, it should be remarked, is not found in Jamaica.

2. *Elaps*, probably *E. fulvius ;* not Jamaican.

" A snake known by the name of the poison snake among the Indians, but among the Europeans by that of Barber's pole. The Indians have no cure for the bite of this creature, it being mortal in 10 or 15 minutes, the patient bleeding at mouth, eyes, and nose, and thus letting out his life."—(Charles Harris).

" The gentleman who wrote the above is son to Revd. Mr. Harris, late Rector of St. Elizabeth [Jamaica] who was in company with an Indian that died from a bite of the above snake, which he takes to be a species of that received from Walrond Teason, Esq., which came from the Spanish main. I have described it the Ring Snake because its body is surrounded with black and yellow rings. Mr. Harris saw the above on the Moskito shore."

The snake is now commonly called the coral snake, but the title mentioned, " Barber's pole," is more suggestive of its appearance. No poisonous snake inhabits Jamaica.

3. Names of lizards. Dr. Robinson writes Guana uniformily for what is now called the Iguana; and for what Gosse writes Galliwasp (*Celestus occiduus*), Robinson has Gully Wasp. In another place Robinson calls the same lizard Gully Asp, which explains at once the origin of the name. He observes: "The lizard tribe in general have nothing poisonous in their bite, but the Gully Wasp is strongly suspected. Cattle and mules are said to be often bit by them and so swell and die."

This notion reminds one of that current in New Mexico, of the fatal effects of Phasmids on cattle when eaten by them.

4. The Gully Asp, *Celestus occiduus*.

"The Gully Asp inhabits morasses and the banks of rivers, and gullys in the plains and mountains. They live upon fish, fruit and even human excrements. They stand upon the banks of rivers, etc., and watch for the fish coming within reach, when they suddenly spring upon them into the water and bring them out in their mouths to the shore, where they eat them. I have been informed that they are oviparous and lay eggs as big as those of a pullet, but I have not yet seen them. I have often been inform'd that no animal will eat the carcass of this creature, and the following instance seems to prove them unwholesome:

"Dr. David Miller inform'd me that a few days ago an acquaintance of his in his way to Mr. Miller's happen'd to kill a small Gully Wasp of about fifteen inches long and brought him to his house and flung him into an inclos'd square where he kept a young alligator of about five feet long. The alligator immediately swallow'd the Gully Asp. This was about 11 o'clock in the forenoon. About four hours after, the alligator (Robinson writes it aligator) was observ'd to jump and flounce about the square, knocking its head and tail against the stockades, seeming to be quite mad and frantic with pain, and continued in the manner till night, when he died. Therefore, the Dr. concluded that the Gully Asp had poison'd him; he says besides that no creature will touch the dead Gully Asp. it should seem that most animals by a natural instinct shun the carcass, and therefore avoid the certain destruction that would happen to them by eating them.

"Yet I believe it is not the flesh of the Gully Asp that is pernicious for two reasons. First, because the negroes at Egyp(t) Plantation often eat them, and secondly, I cannot think that any of the fleshy part could be dissolved in the cold stomach of the alligator in so short a space of time as four hours, besides the hard scales of the Gully Asp's skin would hinder the digestion not a little. What part of this animal is poisonous? perhaps the viscera, but which? This might be known by giving some creature, as a dog or cat, the different parts of the animal to eat at separate times."

Gosse does not admit that this lizard has any injurious properties. The above anecdote about the alligator (crocodile rather), though interesting, is hardly conclusive by itself. Later, Dr. Robinson writes:

"May the 25th, 1760. I was at St. Tooley's, where the overseer, Mr. Watson inform'd me that the Gully Asps about that estate were very fierce and would seize a man, and that their bite, he assur'd me, was certainly venomous. Memorandum to inquire more strictly into this matter." Later he writes:

"A gentleman in St. Elizabeth's informs me that in the mountains there they have a Gully Asp entirely black, which is said to be poisonous, and that if it bite either man or beast they certainly die. He gave me an instance of one biting a girl on the toe (I think), who expir'd a few hours after receiving it. . . . However, this gentleman and almost all other considerable persons in this parish and the next seem to look upon the Great Morass Gully Asp, which I think it may properly be call'd, as an inoffensive creature; the above-quoted person tells a story of a person who while he slept in the morass one night, laid hold of his cap and endeavour'd to pull it off. The gentleman observing this after the first tug, lay close, and quite mistaking it for a negro, resolving to watch him; and the next pull the Gully Asp gave he laid fast hold of him, but perceiving his error throw him backwards some yards. He says he has often fed them with offal, when he has been eating, and suffer'd them to run over his legs."

5. The following observations on a Cœlenterate which I will not pretend to determine, seem to have a bearing on some quite recently published researches.

"Small, clustering Actinea. Amongst the surrounding rocks of Booby Quay, *Actinia minima viride racemosa*, the clustering small green Actinea. These grew many together, they were about an inch long, of a round form like an earthworm. Their arms extended themselves to the diameter of one's thumb-nail, and nothing could be more pleasing than to lean down and observe some hundreds of these animals with their arms extended in the form of a stellate flower with its disc, which the mouth represents, and its rays the extended arms of a various green color as deeper and paler in circles, supported by deep green pedicels smaller than the fore-quill of a goose, and waving to and fro by the undulating motion of the water.

"From their bases are produc'd young ones, and from thence others which never fall from the mother or parent animal, as in the polypus, by which means, they grow in vast numbers, together so thick as to hide the rocks they grow upon entirely, and may be rais'd up as one body, where their bodies are observ'd to unite to one another. Their bodies are firmer and harder in handling than those of the common Actinea, nor do they shrink so much but only close their arms. They growing upon naked rocks so that they are always visible and taken by the incuriose (sic) to be a kind of sea-moss; at low water many of them are bare, at such times they never disclose or expand their arms."

Perhaps some reader will be able to supply the name of this "Actinea."—Agricultural Experiment Station, Las Cruces, New Mexico, March 4, 1894.